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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/600,207 | 06/19/2003 | Darko Segota | 11023.3 | 9028 |
| 7590 12/19/2005 | | | EXAMINER | |
| Christopher L. Johnson KIRTON & McCONKIE Suite 1800 60 East South Temple Salt Lake City, UT 84111 | | | ELDRED, JOHN W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3641 | |

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/600,207 | Applicant(s) SEGOTA ET AL | |
| | Examiner J. Woodrow Eldred | Art Unit 3644 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10, 28, and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 10, 28, and 51, the phrase “positioning said fluid flow regulator in any direction along the surface to align said fluid flow regulator with the optimal pressure recovery point” is vague and indefinite. It is not clear what defines the “direction” of the flow regulator, nor how it can “align” with a “point”.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 12-14, 16-22, 24-26, 29-34, 37-39, 43-45, 47-49, 52, 53, and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wells et al (5,505,409).

See especially column 3, lines 11-45 and column 4, lines 3-41. Note that without further structural distinctions, the disclosed fluid flow regulator is considered to read over the diffuser vane”.

5. Claims 1-14, 16-22, 24-43, 45, 47-53, and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Falco (5,133,519).

See especially column 3, lines 11-60, and Figures 1 and 4.

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 54 or 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Wells et al or Falco.

Both Wells et al and Falco disclose a fluid flow regulator on the surface of an object comprising a plurality of steps that create low pressure areas and thus effect the fluid flow and drag upon the object. Wells et al and Falco each disclose the regulators being used upon a variety of object, and specifically mention the broad category of airfoils and wings for aircraft. See especially column 2, lines 18-19 of Wells et al and column 7, lines 17-19 of Falco. To employ the fluid flow regulators of either Wells et al or Falco on a particular airfoil of an aircraft, such as the claimed stabilizer or rudder, is considered to have been obvious to one having ordinary skill in the art, since this is merely applying the disclosed regulators to a particular type of airfoil or wing within the broadly disclosed category of intended use by Wells et al and Falco.

8. Claims 15, 23, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells et al in view of Occhipinti (5,540,406).

Wells et al is applied as above except that it fails to disclose that the flow regulators are removably attachable. Occhipinti teach that it is well known to use a removably attachable flow regulator on an airfoil. See especially Figures 6 and 8. Motivation to combine is the improved performance gained by being able to attach the flow regulator to existing airfoils, and to remove it if desired to save weight in exchange for performance. To employ the teachings of Occhipinti on the flow regulators of Wells et al and have a removably attachable flow regulator is considered to have been obvious to one having ordinary skill in the art.

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9. The Remarks filed 9-21-05 have been carefully considered but not deemed persuasive. Both Wells and Falco disclose steps with vertical walls which will provide “orthogonal pressure recovery drops”. The argument that the invention must have a curved trailing edge is reading a limitation of the specification into the claims. The language of the claims do not require such a trailing edge and the trailing edge of a wing, as disclosed by Falco and Wells, will inherently read over the claim language.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

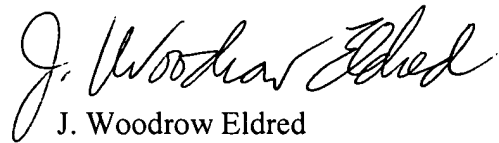
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is 571-272-6901. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "J. Woodrow Eldred". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

J. Woodrow Eldred
Primary Examiner
Art Unit 3644

JWE